



Atty. Dkt. No. 079012-0102

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Vladimir BARANOV et al.

Title: ELEMENTAL ANALYSIS OF  
TAGGED BIOLOGICALLY  
ACTIVE MATERIALS

Appl. No.: 10/614,115

Filing Date: 07/03/2003

Examiner:

Art Unit:

<p><b>CERTIFICATE OF MAILING</b></p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450, on the date below.</p> <p><u>DIANE GARCIA</u> (Printed Name)</p> <p><u>[Signature]</u> (Signature)</p> <p><u>10-31-03</u> (Date of Deposit)</p>
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**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to Pre-OG Notice from Office of Patent Legal Administration dated July 25, 2003, *Information Disclosure Statements May Be Filed Without*

*Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003.*

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

#### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits:

#### **RELEVANCE OF EACH DOCUMENT**

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Respectfully submitted,

Date

October 30, 2003

By

Barry Wilson

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## Complete if Known

Application Number	10/614,115
Filing Date	07/03/2003
First Named Inventor	Vladimir BARANOV
Group Art Unit	
Examiner Name	
Attorney Docket Number	079012-0102

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	4,313,734		Leuving, J.H.W.	02-02-1982	
	A2	4,411,993		Gillis, S.	10-25-1983	
	A3	4,454,233		Wang, et al.	06-12-1984	
	A4	4,543,439		Frackelton, et al.	09-24-1985	
	A5	4,637,988		Hinshaw, et al.	01-20-1987	
	A6	4,902,614		Wakabayashi, et al.	02-20-1990	
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	A8	5,907,034		Bosslet, et al.	05-25-1999	
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	A10	6,140,638		Tanner, et al.	10-31-2000	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

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	A11	Baldwin, G.S., Hollande, F., Yang, Z., Karelina, Y., Peterson, A. Strang, R, Fourmy, D., Neumann, G., Shulkes, A. "Biologically active recombinant human progastrin 6-80 contains a tightly bound calcium ion." J. Biol. Chem 276: 7791-7796, 2001.	
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First Name and Inventor	Vladimir BARANOV
Group Art Unit	
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	A14	Barlett, P. A. et al, "Synthesis of Water-Soluble Undecagold Cluster Compounds." J. Am. Chem. Soc., 100: 5085-5089, 1978.	
	A15	Bartel, et al., "Isolation of new ribozymes from a large pool of random sequences," <i>Science</i> , 261:1411-8, (1993).	
	A16	Binet M.R.B., Ma, R., McLeod, C. and Poole, R.K. 2001 Detection of zinc/cadmium binding proteins in <i>E. coli</i> by gel electrophoresis-laser ablation-inductively coupled plasma-mass spectrometry. Society for Experimental Biology Annual Meeting April 2-6 C1.158 Canterbury, UK	
	A17	Blake, D.A., Blake II, R.C., Khosraviani, M., Pavlov, A.R. "Immunoassays for metal ions." <i>Analytica Chimica Acta</i> 376:13-19, 1998.	
	A18	Bordes, A.L., Schollborn, B., Limoges, B., and Degrand, C. "Simultaneous detection of three drugs labelled by cationic metal complexes at a nafion-loaded carbon paste electrode." <i>Talanta</i> 48:201-208, 1999.	
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	A21	Darwish I.A. and Blake, D.A. "One-step competitive immunoassay for cadmium ions: development and validation for environmental water samples." <i>Analytical Chemistry</i> 73: 1889-1895, 2001.	
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	A23	de Llano, J., Andreu, E., Pastor, A., dela Guardia, M., Knecht, E. "Electrothermal atomic absorption spectrometric diagnosis of familial hypercholesterolemia." <i>Anal. Chem.</i> 72: 2406-2413, 2000.	
	A24	Ellington, et al., "In vitro selection of RNA molecules that bind specific ligands," <i>Nature</i> , 346(6287):818-822 (1992)	
	A25	Ellington, et al., "Selection <i>in vitro</i> of single-stranded DNA molecules that fold into specific ligand-binding structures," <i>Nature</i> , 355(6363):850-852 (1992)	

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	A26	Kohler, G and Milstein, C. "Continuous cultures of fused cells secreting antibody of predefined specificity." <i>Nature</i> 256: 495-497, 1975.	
	A27	Korth, C., Stierli, B., Streit, P., Moser, M., Schaller, O., Fischer, R., Schulz-Schaeffer, W., Kretzschmar, H., Raeber, A., Braun, U., Ehrensperger, F., Hornemann, S., Glockshuber, R., Riek, R., Billerter, M., Wuthrich, K., and Oesch, B. "Prion (PrP <sup>Sc</sup> )-specific epitope defined by a monoclonal antibody." <i>Nature</i> , 390(6655), 74-77, 1997.	
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	A29	Lorsch, et al., "In vitro selection of RNA aptamers specific for cyanocobalamin," <i>Biochem.</i> , 33(4):973-982 (1994).	
	A30	Nagaoka, M. and Maitani, T. "Binding patterns of co-existing aluminium and iron to human serum transferrin studied by HPLC-high resolution ICP-MS". <i>Analyst</i> 135: 1962-1965, 2000.	
	A31	Qiu, J., and Song, J. F. "A rapid polarographic immunoassay based on the anodic current of metal labeling" <i>Anal. Biochem.</i> 240: 13-16, 1996.	
	A32	Robertson, et al., "Selection in vitro of an RNA enzyme that specifically cleaves single-stranded DNA," <i>Nature</i> , 344(6265):467-468 (1990)	
	A33	Segond von Banchet, G., and Heppelmann, B. "Non-radioactive localization of substance P binding sites in rat brain and spinal cord using peptides labeled with 1.4 nm gold particles." <i>J.Histochem.Cytochem.</i> 43: 821-827, 1995.	
	A34	Tanner S.D., Baranov V.I. "A dynamic reaction cell for inductively coupled plasma mass spectrometry (ICP-DRC-MS). Part II. Reduction of interferences produced within the cell." <i>JASMS</i> , 10:1083-1094, 1999..	
	A35	Tanner S.D., Baranov V.I. and Vollkopf U. "A dynamic reaction cell for inductively coupled plasma mass spectrometry (ICP-DRC-MS). Part III. Optimization and analytical performance." <i>J.Anal. At. Spectrom.</i> , 15: 1261-1269, 2000.	
	A36	Turek, et al., "Systematic evolution of ligands by exponential enrichment: RNA ligands to bacteriophage T4 DNA polymerase," <i>Science</i> , 249(4968):505-510 (1990)	

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	A37	Wagenknecht, T., Berkowitz, J., Grassucci, R., Timerman, A.P., and Fleischer, S. "Localization of calmodulin binding sites on the ryanodine receptor from skeletal muscle by electron microscopy." Biophys. J. 67: 2286-2295, 1994.	
	A38	Wenzel, T., and Baumeister, W. "Conformational constraints in protein degradation by the 20S proteasome." Nature Structural Biol. 2: 199-204, 1995.	
	A39	Wind, M., Edler, M., Jakubowski, N., Linscheid, M., Wesch, H., Lehmann, W. "Analysis of protein phosphorylation by capillary liquid chromatography coupled to element mass spectrometry with P <sup>31</sup> detection and to electrospray mass spectrometry." Anal. Chem. 73: 29-35, 2001.	

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